

Quantum Intelligence-Enabled Algorithms as Solutions for the Modern Computing World

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With the technological revolution in the present era, the necessity of highly effective computing solutions is still in the exploration stage. The rapid growth of massive computing requirement applications as well as the limitations of classical computing architectures, the researchers are trying hard to establish the intelligence of Quantum Principles as modern computing solutions as Quantum Intelligence-Enabled Algorithms (QIEAs). Quantum intelligence combines principles stating from quantum principles- superposition, entanglement, probabilistic state representation etc. The Quantum intelligence-based optimizations are amalgamating with intelligent learning paradigms such as AI/ML, evolutionary computation, swarm intelligence etc., for accelerating the accuracy and precision.

The Quantum Intelligence-Enabled Algorithms (QIEAs) are effective in dealing with computationally complex optimization problems (NP-hard), capability of extensive solution search space exploration, auto-learning and adjusting capability under uncertainty leads to a modern computing solution for Next-generation Artificial Intelligence World. The significance of QIEAs is constantly emerging in the domains such as autonomous systems, cognitive computing, and intelligent cyber-physical environments, Healthcare industry, defence systems etc.